

ACCESSION NR: AP4039763

S/0065/64/000/006/0024/0028

AUTHOR: Karzhev, V. I.; Sil'chenko, Ye. I.; Goncharova, N. V.;
Svirina, V. P.; Lebedeva, A. M.

TITLE: Separation of aromatic hydrocarbons by means of complexes

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 6, 1964, 24-28

TOPIC TAGS: xylene, p-xylene, m-xylene, antimony(III) chloride,
p-xylene separation

ABSTRACT: A study has been made of the separation of p-xylene by means of complex formation with SbCl₃ from a mixture of C₈ aromatic hydrocarbons produced in the aromatization of gasoline fractions. The principal purpose was to determine the maximum percentage recovery of p-xylene obtainable. The purity of the isolated p-xylene was also studied. Xylenes, synthetic mixtures of pure p- and m-xylene, and the 136—140°C. xylene fraction produced at the Novokuybyshevkiy Refinery were used. SbCl₃ was dissolved in the

Card 1/3

ACCESSION NR: AP4039763

hydrocarbon mixture at 60—70°C. The solution was cooled to a pre-determined temperature, and a $SbCl_3 \cdot C_6H_4(CH_3)_2$ crystal seed (mp, 56°C) was added. After standing for one hour, the precipitated crystalline complex was filtered off and thermally decomposed at 136—144°C. The hydrocarbons were isolated by distillation. Optimum conditions for various stated initial compositions are given in tables. It was concluded that separation of highly concentrated p-xylene is best conducted in a continuous equipment in two or three stages, depending on the starting-material composition, the complex being decomposed between the stages. In this case, 94—96% p-xylene is produced after the last stage. The $SbCl_3$ can be repeatedly regenerated. The mother liquor can be returned to the first stage and m-xylene can be separated from it by complex formation with $SbCl_3$ under different conditions. This research was done at the All-Union Scientific Research Institute of the Petroleum Industry. Orig. art. has: 5 tables and 1 figure.

Card 2/3

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R000929030012-5

ACCESSION NR: AP4039763

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 24Jun64

ENCL: 00

SUB CODE: CC

NO REF SOV: 003

OTHER: 003

Card 3/3

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R000929030012-5"

KARZHEV, V.I.; SIL'CHENKO, Ye.I.; ROBOZHEVA, Ye.V.; LEBEDEVA, A.M.

Transformations of high-boiling paraffin hydrocarbons under the
conditions of hydrocracking. Khim. i tekhn. topl. i masel 10
(MIRA 1981)
no.11:4-9 N '65.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke
nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.

LEBEDEVA, A.N.

Significance of bacteriological examinations of cadaveric material.
Arkh.pat.17 no.1:82-83 Ja-Mr '55. (MLRA 8:10)

1. Iz laboratorii i patologoanatomiceskogo otdeleniya bol'nitsy
imeni Medsantrud.
(CADAVERS, bacteriology)

Source : U.S.S.R. 1953
Category : H-28
Abs. Jour. : 47725
Author : Bomar, M.; Lebedova, A. N.
Institut. :
Title : Penetration of Micro-Organisms Through Paper
Orig. Pub. : Obaly, 1953, 4, No 2, 61
Abstract : Presentation of the results of studies of the
permeability to micro-organisms of paper and cardboard used
in packaging food products.

SOV/20-123-5-21/50

3(9)

AUTHORS: Kriss, A. Ye., Biryuzova, V. I.: Lebedeva, A. N.

TITLE: A Morphological Description of the Microbe Population of the Seas and Oceans (Morfologicheskaya kharakteristika mikrobenogo naseleniya morey i okeanov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 5, pp 845-848
(USSR)

ABSTRACT: The present paper systematically classifies observations made concerning the morphology of microorganisms detected in various depths of the Black Sea, the Caspian Sea, the north-western part of the Pacific, and the North Pole region. Each of these investigated regions is located at a sufficient distance from the next shore. A table gives the depth distribution of coccoid, rod-shaped, thread-shaped species and also of species of unusual shapes in the above-mentioned seas and oceans. Some of the microorganisms of unusual morphology are shown in a figure. Some of these microorganisms live only in relatively small regions of the sea. The microbic cells of unusual morphology (with the exception of the fragmentating threads) do not grow under laboratory conditions. The detection of microbes of unusual morphology is very interesting.

Card 1/2

SOV/20-123-5-21/50

A Morphological Description of the Microbe Population of the Seas and Oceans

for microbiology and for the purpose of investigating and
indicating the presence of Oceanic Currents. There are 1
figure, 1 table, and 10 Soviet references.

ASSOCIATION: Institut mikrobiologii Akademii nauk SSSR
(Institute of Microbiology of the Academy of Sciences, USSR)

PRESENTED: May 26, 1958, by A. I. Oparin, Academician

SUBMITTED: May 26, 1958

Card 2/2

LEBEDEVA, A.N.

LEBEDEVA, A.N., doktor meditsinskikh nauk

Precancerous diseases of the ovaries. Trudy AMN SSSR 21 no.4:71-78
'52. (MIRA 10:8)

1. Iz onkologicheskoy kliniki (zav. - prof. L.M.Ratner) Sverdlovskogo nauchno-issledovatel'skogo instituta fizicheskikh metodov lecheniya.

(OVARIES, neoplasms,
precancer)

LEBEDEVA, A.N.

LEBEDEVA, A.N.; GLUZMAN, V.S.

Remote results of radiologic and operative therapies of uterine
cancer. Trudy AMN SSSR 21 no.4:81-86'52. (MIR 10:8)

1. Iz onkologicheskoy kliniki Sverdlovskogo nauchno-issledovatel'sko-
go instituta fizicheskikh metodov lecheniya (zav. - prof. L.M.
Ratner, dir. - kand.med. nauk Ye.I.Milyutina)

(UTERUS, neoplasms,
radiother. & surg., results)

(RADIOTHERAPY, in various diseases,
cancer of uterus)

ARKHANGEL'SKAYA, I.A.; LEBEDEVA, A.N., doktor meditsinskikh nauk, zaveduyushchiy
stationalom.

Pyometra as complication of uterine cancer. Akush. i gin. no.3:81-82
(MLRA 6:7)
My-Je '53.

1. Ginekologicheskoye otdeleniye Sverdlovskogo oblastnogo onkologicheskogo
dispansera.
(Uterus--Cancer)

LEBEDEVA, A.N., doktor meditsinskikh nauk.

Immediate and remote results of surgery and radiotherapy of tumors
of the ovaries. Akush.i gin. no.2:42-46 Mr-Ap '54. (MIRA 7:6)

1. Iz Sverdlovskogo oblastnogo onkologicheskogo dispansera (glavnyy
vrach F.M.Teploukhova). (Ovaries--Tumors) (Radiotherapy)

LEBEDEVA, A. N.

Treatment of papillary cystoma. Akush. i gin. no.4:76-78 J1-Ag
'55.
(MLRA 8:11)

1. Iz Sverdlovskogo oblastnogo onkologicheskogo dispansera
(glavnnyy vrach F.M.Teploukhova)
(UTERUS, cysts
surg., & ther.)
(ADNEXA UTERI, cysts
surg. & ther.)
(CYSTS
uterus & adnexa, surg. & ther.)

AID P - 2182

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 2/19

Author : Lebedeva, A. P., Kand. of Biol. Sci.

Title : The essential problem of the sanitary chemistry of
the soil

Periodical : Gig. i san., 5, 8-14, My 1955

Abstract : The point at issue here is the article by N. I. Khlebnikov,
in this journal, 1951, no. 4. The author discusses cri-
tically Khlebnikov's and various other Soviet methods of
chemical separation of organic impurities and refuse from
the organic humus substance of the soil, and considers
then all unreliable. The most important problem from the
sanitary point of view - according to the author - is to
find out a safe method of purifying the organic humus
from organic decay stuff and rot in the soil. Tables,
22 Russian refs. (1929-1952).

Institution : Ukrainian Institute of Municipal Hygiene

Submitted : S 29, 1954

LEBEDEVA, A.P., kand.biol.nauk

Some problems of refuse collection and disinfection from data of
foreign literature. Gig. i san. 23 no.2:59-66 F '58. (MIRA 11:4)

1. Iz Ukrainskogo instituta kommunal'noy gigиveny.

(SANITATION

refuse collection & disinfect., problems (Rus))

LEBEDEVA, A.P.; TOLSTOSHEY, O.N.

Contamination of soil with hexachloran from its use in agriculture.
Gig. i sac. 26 no.11:15-18 N '61. (MIRA 14:11)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta kommunal'noy
gigiyeny. (CYCLOHEXANE) (SOIL POLLUTION)

LEBEDEVA, A.P.; MITYAGINA, Z.M.; STARIKOVA, Yu.P.

Study of the anatomical and morphological structure of the underground system of the meadow geranium and the production of new pharmaceutical preparations from it. Trudy Perm. farm. inst. no.1: 74-80 '59. (MIRA 15:1)

1. Permskiy farmatsevticheskiy institut, kafedra tekhnologii lekarstv i kurs botaniki. (GERANIUMS)

LEBEDEVA, A. P.; OSIPKOVA, T. A.

Pneumomediastinography in tumors of the mediastinum in children.
Grud. khir. 4 no. 3:80-84 My-Je '62. (MIRA 15:7)

1. Iz kafedry khirurgii detskogo vozrasta (zav. - doktor meditsinskikh nauk G. A. Bairov) i kafedry rentgenologii i radiologii (zav. - prof. Ia. L. Shik) Leningradskogo pediatricheskogo meditsinskoj instituta (rektor Ye. P. Semenova)

(MEDIASTINUM--TUMORS) (PNEUMOMEDIASTINUM)

LEBEDEVA, A. P. (Leningrad V-34, Vasil'yevskiy ostrov, Bol'shoy prosp.,
d. 8/4, kv. 40)

Benign tumor of the lung in a 2-year-old child. Grud. khir. 4
no. 3:92-93 My-Je '62. (MIRA 15:7)

1. Iz kafedry khirurgii detskogo vozrasta (zav. - doktor medi-
tsinskikh nauk G. A. Bairov) Leningradskogo pediatriceskogo medi-
tsinskogo instituta (rektor Ye. P. Semenova)

(LUNGS—TUMORS)

LEBEDEVA, A.P.; OSIPKOVA, T.A.

X-ray diagnosis of mediastinal tumors in children using gas
as a contrast medium. Vest. khir. no. 6:119-125 '65.

(MIRA 18:12)

1. Iz kafedry khirurgii detskogo vozrasta (zav. - chlen-korrespondent AMN SSSR prof. G.A. Bairov) i rentgenologii (zav. - prof. Ya. L. Shik) Leningradskogo pediatricheskogo meditsinskogo instituta.

LEBEDEVA, A.S.; LIKOSHERSTOV, A.M.; SKOLDINOV, A.P.

Derivatives of azacycloalkanes. Part 1: N-substituted
α-pyrrolidinecarboxylic acids and their esters. Zhur. ob.
khim. 34 no.11:3806-3809 N '64 (MIRA 18:1)

1. Institut farmakologii i khimioterapii AMN SSSR.

LEBEDEVA, A.S.; LIKHOSHERSTOV, A.M.; SKOLDINOV, A.F.

Derivatives of azacycloalkanes, Part 2: Dialkylaminoalkyl
esters of N-substituted *d*-pyrrolidinecarboxylic acids.
Zhur. ob. khim. 34 no.11 & 3809-3811 N '64 (MIRA 18:1)

1. Institut farmakologii i khimioterapii AMN SSSR.

KORSHAK, V.V.; VINOGRADOVA, S.V.; LEBEDEVA, A.S.

Heterochain polyesters. Part 26: Study of some laws governing
polyesterification at the interface. Vysokom.sosed. 2 no.1:
61-66 Ja '60. (MIR: 13:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Esterification) (Polymerization)

KORSHAK, V.V.; VINOGRADOVA, S.V.; LEBEDEVA, A.S.

Heterocyclic polyesters. Part 27: Some correlations in the
polyesterification taking place at the boundary between two
phases. Vysokom.sod. 2 no.7:977-983 J1 '60. (MIRA 13:8)
(Esterification) (Polymerization)

KORSHAK, V.V.; VINOGRADOVA, S.V.; LEBEDEVA, A.S.

Heterochain polyesters. Part 28: Investigation of some correlations in interfacial polyesterification. Vysokom. soed. 2 no.8:1162-1166 Ag '60. (MIRA 13:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Polymerization)

KORSHAK, V.V.; FRUNZE, T.M.; VINOGRADCVA, S.V.; KURASHEV, V.V.; LIEBEDEVA, A.S.

Heterochain polyamides. Part 29: Significance of the hydrolysis
of dichlorides of dicarboxylic acids during interphase polycondensa-
tion. Vysokom.soced. 3 no.3:371-375 Mr '61. (MIRA 14:6)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Polyamides) (Condensation products (Chemistry))

KORSHAK, V.V.; VINOGRADOVA, S.V.; FRUNZE, T.M.; LEBEDEVA, A.S.; KURASHEV, V.V.

Heterochain polyesters. Part 31: Role played by the hydrolysis
of aromatic dicarboxylic acid chlorides in the process of inter-
facial polycondensation. Vysokom. soed. 3 no. 7:984-990 J1 '61.
(MIRA 14:6)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Hydrolysis) (Isophthaloyl chloride)
(Terephthaloyl chloride) (Polymerization)

25176

S/190/61/003/007/020/021
B101/B23053830

AUTHORS:

Korshak, V. V., Vinogradova, S. V., Lebedeva, A. S.

TITLE:

New method of synthesizing grafted and block copolymers

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 7, 1961, 1117

TEXT: In this letter authors report to the editor that they found a possibility of applying the method of interfacial polycondensation to the synthesis of grafted and block copolymers. Synthesis of grafted and block copolymers may be conducted in various alternatives of this method. Thus, copolymers may be obtained on the basis of the reactions: (see below). In particular, authors obtained grafted copolymers on the basis of phenol formaldehyde resin and polyarylates from dian and isophthalic or sebacic acids. The grafted copolymer obtained on the basis of phenol formaldehyde resin, chloride of isophthalic acid and dian at a molar ratio of 0.2 : 1.1 : 1 (as well as 2.2 moles of alkali) was a crystalline substance of a low degree of orderliness, with softening point 170 - 292°C capable to form a solid film out of the molten material. Tensile strength of the non-oriented film of this polymer amounted to 660 kg/cm².

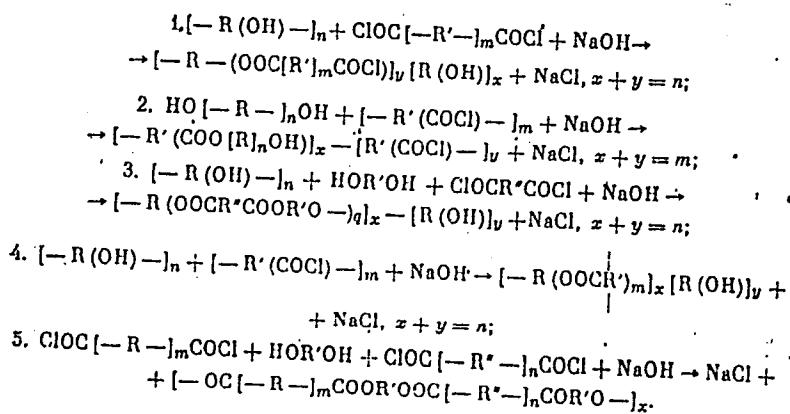
Card 1/2

New method of synthesizing... *52235*

S/190/61/003/007/020/021
B101/B230

with a relative breaking elongation of 12 %. Properties of grafted co-polymers obtained by interfacial polycondensation may be varied within a wide range by changing the ratio and chemical character of the initial substances. [Abstracter's note: Complete translation.]

SUBMITTED: January 3, 1961



Card 2/2

KOCHETKOV, N.K.; LIKHOSHERSTOV, A.M.; LEBEDEVA, A.S.

Pyrrolizidine alkaloids. Part 2. Stereospecific synthesis
of d, l-isoretronecanol. Zhur. ob. khim. 31 no.10:3461-3469 O '61.
(MIRA 14:10)

l. Institut farmakologii i khimioterapii Akademii meditsinskikh nauk
SSSR.
(Isoretronecanol)

*LEBEDEVA, A.S.*12158
S/19/162/COC/001/002/006
B145/3110

15 8/12

AUTHORS:

Korshak, V. V., Akutin, M. S., Vinogradova, S. V.,
Rodivileva, L. A., Valenkiy, P. M., Lebedeva, A. S.,
Selazkin, S. N.

TITLE: Polyarylates - new thermostable polymers

PERIODICAL: Plasticheskiye massy, no. 1, 1962, 9-13

TEXT: A survey of the properties of polyarylates is given. They are best synthesized from bifunctional phenols and dicarboxylic acid chlorides. Some of the synthesized polyarylates and their softening temperatures are given in Table 1. The great number of rings in the polymer ensure high resistance to most organic solvents as well as to gasolines and oils. At room temperature, the polyarylate ID (ID) is stable against H_2O_2 , dilute and concentrated caustic soda solutions, acetic acid, formic acid, nitric acid, and sulfuric acid. The effect of dilute and concentrated ammonia solutions considerably reduces the molecular weight of ID. Polyarylates on the basis of phenoiphthalein are readily soluble in a number of solvents, which facilitates the production of foils. At the NIIPM it was

Card 1/5

X

12353
Polyarylates - new thermostable ...

3/191/62/000/001/002/006
B145/B110

established that the polyarylates TD (TD) and ID withstand high temperatures. Decomposition increases with rising temperature, at first slowly and then sharply at about 400°C. The oxidation of ID sets in at 250°C and proceeds slowly. Measurement of breakdown voltage, temperature dependence of tan δ, dielectric constant, and volume resistivity for some polyarylates prove that they are better dielectrics than polyethylene terephthalate, polycarbonate, etc. Polyarylates have good mechanical properties at various temperatures. Working processes are being elaborated at present. Specimens of mixed polyarylates were obtained by pressure casting, the tensile strength of which reached 850 kp/cm². Specimens sprayed on metal showed an adhesion to metal of 75 to 150 kp/cm². Work is also in progress on polyarylates with double bonds and free functional groups. They might be used as a basic material for the production of varnishes, glues, glass-reinforced plastics, and foam plastics. There are 5 figures, 6 tables, and 5 Soviet references.

Table 1. Softening temperature of polyarylates of different structures.
Legend: (1) polyarylate; (2) structure of the chain link; (3) softening temperature in °C; (4) TD; (5) ID; (6) TG; (7) IC; (8) TR; (9) IR; (10) TF; (11) IF; (12)-(14) ITD; (15) IDR; (16) TDR; (17) IPD; (18) IAD; ✕ the

Card 2/5

Polyarylates - new compounds

molecular ratio of the initial dicarboxylic acid chlorides related to
1 mole of diol is given in parentheses; \times is the molecular ratio of the
initial diols related to 1 mole of dicarboxylic acid chloride is given in
parentheses.

Card 3/5

X

KORSHAK, V.V.; VINOGRADOVA, S.V.; LEBEDEVA, A.S.; Prinimala uchastiye:
RESHETNIKOVA, L.L., laborant

Heterochain polyesters. Part 35: Some regularities in interfacial
polyesterification. Vysokom.soed. 4 no.7:968-971 Jl '62. (MIRA 15:7)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Esterification)
(Polymers)

KORSHAK, V.V.; FRUNZE, T.M.; VINOGRAD'VA, S.V.; KURASHEV, V.V.; LEBEDEVA, A.S.

Role of acid chloride hydrolysis of some aliphatic and aromatic dicarboxylic acids in the process of interfacial polycondensation. Izv. AN SSSR. Otd. khim. nauk no. 10: 1807-1813 O '62. (MIRA 15:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
 (Acids, Organic) (Chlorides) (Hydrolysis)
 (Polymerization)

15.8070

2

4191h
8/191/62/000/011/006/019
B101/B186

AUTHORS: Akutin, M. S., Korshak, V. V., Rodivilova, L. A.,
Vinogradova, S. V., Budnitskiy, Yu. M., Valetskiy, P. M.,
Lebedeva, A. S.

TITLE: New data on processing and properties of polyarylates

PERIODICAL: Plasticheskiye massy, no. 11, 1962, 20-26

TEXT: This paper deals with experiments for determining the optimum processing conditions of polyarylates from isophthalic acid and diane (ID), terephthalic acid and diane (TD), and the mixed polymer ITD (ratio iso- to terephthalic acid 1:1). Preliminary experiments showed that the interfacial polycondensation in more concentrated solutions than hitherto usual gave polymers with low molecular weight: thus 13.5% by weight of diane in NaOH solution + 15-20% by weight of isophthalic dichloride in methylene chloride yielded a polymer with MW ~16,000. A better result was obtained for ITD in the presence of 1% triethyl benzyl ammonium chloride as catalyst: the reduced viscosity in tricresol was 0.58. Injection-molded products were made from ID, TD, and ITD, and tested. Results:

Card 1/3

S/191/62/000/011/006/019
B101/B186

New data on processing and ...

(1) At 280-360°C, ID and TD can be processed only in inert gas atmosphere since thermal destruction occurs if air is present. ITD can still be processed at these temperatures in the presence of air. (2) The strength of products depends on the molecular weight (or on the reduced viscosity). Adequate tensile strength (~ 400 kg/cm²) is attained above $\eta_{red} = 1.0$. Products with a tensile strength of 850-900 kg/cm² were obtained from ITD with $\eta_{red} = 1.9-2.0$. (4) The tensile strength drops from 820 kg/cm² at 280°C to 480 kg/cm² at 340°C. (5) The effect of the molding time becomes manifest the tensile strength dropping from 850 kg/cm² after 10 min to 300 kg/cm² after 30 min molding time. (6) A change in molding pressure has no effect on the tensile strength. (7) Increasing the temperature of the mold from 80 to 160°C increases the tensile strength from 650 to 820 kg/cm², but a further increase (to 200°C) reduces the tensile strength. (8) A study of the chemical stability of injection-molded specimens and films showed: good stability to mineral and organic acids, oxidants, and dilute alkalies; poor stability to concentrated alkalis, particularly ammonia; swelling in some solvents, injection-molded specimens being more stable than films. The chemical stability of polyarylates resembles that of polycarbonates, and is inferior to that of polyethylene terephthalate

Card 2/3

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R000929030012-5

S/191/62/000/011/006/019
B101/B186

New data on processing and ...

only as regards the swelling in some organic solvents. There are
8 figures and 6 tables.

Card 3/3

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R000929030012-5"

L 13548-63

EMP(j)/EWI(m)/BDS

ASD

PC-4 RM

ACCESSION NR: AP3000693

8/0190/63/005/005/0674/0680

62
58AUTHOR: Korshak, V. V.; Vinogradova, S. V.; Ishedeva, A. S.

TITLE: Heterochain polyesters. 41. Interfacial synthesis of mixed polyarylates

SOURCE: Vy*okomolekulyarny*ye soysdineniya, v. 5, no. 5, 1963, 674-680

TOPIC TAGS: interfacial synthesis, interfacial condensation, polyesters, polyarylates, diane, adipyl chloride, sebacyl chloride, terephthalyl chloride

ABSTRACT: The study involved the formation of mixed polyarylates by interfacial polycondensation, based on the interaction of diane(*n,n'*-dioxyphenyl-2,2-propane) and sebacyl-, adipyl-, terephthalyl-, and isophthalyl chlorides. The procedure consisted of adding to an alkaline 0.1m diane solution a 0.1m solution of the corresponding chlorides in an organic solvent. It was found that by using the chlorides of sebacyl and terephthalyl the solubility of the obtained polymers in *n*-xylene decreased with an increase of terephthalyl chloride. In comparing the infrared spectra of the obtained polymer with those of the diane-sebacyl and diane-terephthalyl polyarylates, the polymer proved to be of mixed nature. Studies of its softening behavior on heating, as well as of its solubility behavior pattern in *n*-xylene revealed its nonhomogeneous nature. This was confirmed by x-ray investigations which suggested an intermediate crystalline-amorphous structure. The

Card 1/2

L 13548-63

ACCESSION NR: AP3000695

reactivity of the respective chlorides was shown to play an important role in the formation of the polyarylates, adipyl chloride heading the list. Thanks for the optical and x-ray determinations are given to the workers of the Institute of Organoelemental Compounds, Academy of Sciences SSSR, headed by I. V. Obreimov and A. I. Kitaygorodskiy. L. D. Reshetnikova participated in the experimental work. Orig. art. has: 1 figure and 3 tables.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Organoelemental Compounds, Academy of Sciences SSSR)

SUBMITTED: 12Oct61

DATE ACQ: 17Jun63

ENCL: 00

SUB CODE: CH

NO REF Sov: 007

OTHER: 001

Card 2/2

KORSHAK, V.V.; SIDCROV, T.A.; VINOGRADOVA, S.V.; KOMAROVA, L.I.; VALETSKIY,
P.M.; LEBEDEVA, A.S.

Heterochain complex polyesters. Report No.52: Determination of
double bonds in unsaturated polyarylates by infrared spectro-
scopy. Izv. AN SSSR Ser. khim. no.2:261-268 '65.

(MIRA 18:2)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 40910-66 EWT(m)/EWP(j)/T IJP(c) WH/RM

ACC NR: AP6025623

SOURCE CODE: UR/0413/66/000/013/0077/0078

AUTHORS: Korshak, V. V.; Vinogradova, S. V.; Lebedeva, A. S.; Bulgakova, I. A.

ORG: none

TITLE: Preparative method for polyarylates. Class 39, No. 183386 [announced by Institute of Heteroorganic Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy AN SSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 77-78

TOPIC TAGS: polyarylates, plastic, dicarboxylic acid, polycondensation

ABSTRACT: This Author Certificate presents a method for preparing polyarylates by polycondensation of dicarbonyl chlorides with bisphenols. To broaden the assortment of polyarylates having high thermal stability either bis(hydroxyphenyl)pyromellitic acid or bis(hydroxyphenyl)pyromellitic acid is used as the bisphenol. [04]

SUB CODE: 07/ SUBM DATE: 05Jul65/ ATD PRESS: 5059

Card 1/1 LC

UDC: 678.673'52'52

ROZENSHTRAUHH, L.S., kand. med. nauk.; LEBEDEVA, A.T.; KUTUKOVA, Ye.A. (Moskva,
ul. Pushkinskaya, d. 20/5, kv. 1.)

X-ray diagnosis of pericardial cysts. Nov. khir. arkh. 5:80-85 S-0 '58.
(MIRA 12:1)
S-0 '58.

1. Kafedra rentgenologii II (zav.- prof. Yu.N. Sokolov) Tsentral'-
nogo instituta usovershenstvovaniya vrachey, 1-ya khirurgicheskaya
klinika (zav. - dots. N.I. Makhov) i rentgenologicheskiy otdel (zav.-
dots. V.I. Petrov) Moskovskogo oblastnogo nauchno-issledovatel'skogo
klinicheskogo instituta.
(PERICARDIUM--RADIOGRAPHY) (CYSTS)

LIEBEDEVA, A.T.; SVETLAKOV, M.I.

Tomography in diagnosis of cancer of the larynx. Vest.rent. i rad.
33 no.2:88-90 Mr-Ap '58. (MIRA 11:6)

1. Iz rentgenologicheskogo otdela (zav. - kandidat meditsinskikh nauk V.I.Petrov) i kliniki bolezney ukha, gorla, nosa (zav. - prof. I.Ya.Sendul'skiy) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta (dir. - kandidat meditsinskikh nauk P.M. Leonenko)

(LARYNX, neoplasms
diag. value of tomography (Rus))

LIEBEDEVA, A.T.

X-ray diagnosis of certain noncontrast foreign bodies in the bronchi. Vestn. rentgen. i radiol. 38 no.4:37-40 Jl-Ag '63 (MIRA 17:2)

1. Iz rentgeno-radiologicheskogo otdela (rukoveditel' - doktor med. nauk V.I.Petrov) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F.Vladimirovskogo (dir. zasluzhennyj vrach RSFSR P.M. Leonenko).

MANUKOVSKIY, N.F., Geroy Sotsialisticheskogo Truda, brigadir; LEBEDEVA, A.T., zven'ev.
Geroy Sotsialisticheskogo Truda; KOLYADINA, A.A.; GUSEVA, N.F.; GUBANOVA, M.T.;
GURENKO, A.G., svinar'; SVIRIDOV, I.G., svinar'; SHERSHOVA, M.V., zootekhnik; GORIN, D.P.; TAMBOVTSEV, P.K.; ULIN, I.; SAYTANIDI, L.D., tekhn. red.

[Leaders of socialist competition from Voronezh tell their stories]
Rasskazyvaiut peredoviki-voronezhtsy. Moskva, Izd-vo M-va sel'khoz. RSFSR, 1960. 54 p.

(MIRA 14:11)

1. Brigada kompleksnoy mekhanizatsii kolkhoza imeni Kirova Voronezhskoy oblasti (for Mamukovskiy).
2. Kolkhoz "Rossiya" Voronezhskoy oblasti (for Lebedeva, Shershova).
3. Ryadovyye zvena vysokoy proizvoditel'nosti kolkhoza imeni Stalina Voronezhskoy oblasti (for Kolyadina, Guseva).
4. Zven'yevaya kolkhoza imeni S.M. Kirova Voronezhskoy oblasti (for Cubanova).
5. Sovkhoz "Vorob'yevskiy" Voronezhskoy oblasti (for Gurenko).
6. Sovkhoz "Maslovskiy" Voronezhskoy oblasti (for Sviridov).
7. Predsedatel' kolkhoza "Pechernoye" Voronezhskoy oblasti (for Gorin).
8. Direktor sovkhoza "Vtoraia pyatiletka" Voronezhskoy oblasti (for Tambovtsev).

(Voronezh Province—Stock and stockbreeding)
(Socialist competition)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R000929030012-5

LEBEDEVA, A. Z.
25893

Puti I Dostizheniya Sovetskoy Nauki O
Tuberkuleze. 'Yulleten' In-Ta Tuberkuleza Akad.
Med. Nauk SSSR, 1948, No. 1, S. 3-11

SO: LFTOPIS NO. 30, 1948

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R000929030012-5"

LEBEDEVA, B.A.

Investigation of the mechanisms of chemoreception. VI. Modifications in the irritability of chemoreceptors following induction of metabolic disorders with monooxyacetic acid. Biul. eksp. biol. i med. 38 no.11: 19-27 N '54. (MLRA 8:1)

1. Iz laboratorii fiziologii retseptorov (zav. deystvitel'nyy chlen AMN SSSR V.N.Chernigovskiy) Instituta fiziologii imeni I.P.Pavlova (dir. akad. K.M.Bykov)

(**IODOACETATES, effects,**
on blood pressure & resp. responses to stimulation of intestine in cats)

(**BLOOD PRESSURE, physiology,**
eff. of intestinal stimulation in cats, eff. of iodoacetates on responses)

(**RESPIRATION, physiology,**
eff. of intestinal stimulation in cats, eff. of iodoacetates on responses)

(**INTESTINES, physiology,**
eff. of stimulation on blood pressure & resp., eff. of iodoacetates on responses in cats)

ALEKSANDROV, P.P.; LEBEDEVA, B.A.; RONINSON, M.Yu. (Leningrad)

Work of a hospital council. Sov. zdrav. 20 no.8:58-63 '61.
(MIRA 15:1)

1. Iz bol'nitsy imeni Karla Marks'a, Leningrad.
(HOSPITALS--ADMINISTRATION)

KHARITONOV, V.M.; LEBEDEVA, D.I.; KHARITONova, G.N.; TOROPOVA, Ye.G.;
KIRIYENKO, I.B.

Preparation of "adimine" fibers. Khim.volok. no.5:47-49
(MIRA 15:11)
'62.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut
steklyanogo volokna (for Kharitonov, Lebedeva). 2. Klinskiy
kombinat iskusstvennogo i sinteticheskogo volokna (for
Kharitonova, Toropova, Kiriienko).
(Textile fibers, Synthetic)
(Polyamides)

BUDAGOV, A.V.; LEBEDEVA, D.M., glavnnyy vrach.

Traumatic aneurism of the descending aorta. Vest.rent.i rad. no.3:83-86
My-Je '53. (MLRA 6:8)

1. Astrakhanskaya gorodskaya poliklinika imeni N.I.Pirogova.
(Aneurism, Aortic)

AUTHORS: Grekov, V.I., Kamanin, L.G., Lebedeva, D.M., Lopatina, Ye.R.,
Pradkin, N.G. SOV-10-58-4-13/28

TITLE: Landmarks in the History of Geographical Science
(ramyaytnyye daty iz istorii geograficheskoy nauki)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geograficheskaya:
1958, Nr 4, pp 87-90 (USSR)

ABSTRACT: This article contains a list of memorable events in the
field of geography from 1508 to 1933.

1. Geography--USSR

Card 1/1

IKHEDDEVA, D.V.

Casting weights for vibration dampers in high-voltage transmission
systems. Lit.proizv. no.11:41 N '62. (MIRA 15:12)
(Molding (Founding))

LEBEDEVA, E.A.

Controlling the formation of deposits in collecting pipes of
phenolic wastes. Uzb.khim.zhur. no.2:71-72 '61. (MIRA 14:10)

1. Chirchikskiy elektrokhimicheskiy kombinat imeni Stalina.
(Factory waste)

ROZHDESTVENSKIY, L.M., student VI kursa, NAVROTSKAYA, V.V., studentka III kursa
LEBEDEVA, E.D., studentka III kursa.

Experimental surgery in providing a plastic tube for the trachea.
Vest.oto.-rin. 20 no.3:105 My-Je '58 (MIRA 11:6)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomi (zav. - prof. V.V. Kovanov) I Moskovskogo meditsinskogo instituta imeni I.M. Sechenova.
(TRACHEA--SURGERY)

YUR'UEV, Yu.K.; PENTIN, Yu.A.; Revenko, O.M.; LIBEDEVA, E.I.

2,3-Dialkylpentamethylene sulfides and their infrared absorption spectra. Neftekhimiia 2 no.2:137-143 Mr-Ap '62. (MIRA 15:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova;
khimicheskiy fakul'tet.
(Thiopyran—Spectra)

LEBEDEV, E.I.

Universal tools for group pressing of cylindrical parts. Stroj
vyr 9 no. 6:298-300 '61.

MEL'NIKOV, N. N.; SHVETSOVA-SHILOVSKAYA, K. D.; LEBEDEVA, E. I.

Herbicides and plant regulators. Part 38: New method of
preparing aryldialkylureas. Zhur. ob. khim. 32 no.12:3957-
3959 D 162.
(MIRA 16:1)

1. Nauchnyy institut po udobreniyam i insektofungitsidam
imeni Ya. V. Samoylova, Moskva.

(Urea)

SHVETSOVA-SHILOVSKAYA, K.D.; LEBEDEVA, E.I.; MEL'NIKOV, N.N.

Organic insectofungicides. Part 77: Interaction of phosphorothioic and phosphorodithioic acid esters with amino acids and amino alcohols. Zhur. ob. khim. 34 no. 7:2138-2140
Jl '64
(MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh sredstv zashchity rasteniy, Moskva.

16(1), 16(2)

AUTHOR: Lebedeva, E.N.

TITLE: Solution of a System of Infinite Linear Equations (Resheniye odnoy sistemy beskonechnykh lineynykh uravneniy)

PERIODICAL: Izvestiya Akademii nauk Uzbekskoy SSR, Seriya fiziko-matematicheskikh nauk, 1959, Nr 2, pp 7-13 (USSR)

ABSTRACT: The author considers the system

$$\begin{cases} P'_0(t) = -\lambda P_0(t) + \beta P_1(t) \\ P'_k(t) = \lambda P_{k-1}(t) - (\lambda + k\beta) P_k(t) + (k+1)\beta P_{k+1}(t) \end{cases}$$

where $P_k(t)$ is the probability that in the moment t a system is in the state k . There are no assumptions on the existence of $\lim_{t \rightarrow \infty} P_k(t) = P_k$ ($k = 0, 1, 2, \dots$) or on the admissibility of the limit passage in all equations at the same time. It is shown that the general solution is

$$P_{k-1} = \frac{y^{k-1}}{(k-1)! \sum_{i=1}^n \frac{y^{i-1}}{(i-1)!} + (k-1)! \frac{y^n}{(n-1)!(n-y)}},$$

Solution of a System of Infinite Linear Equations SOV/166-59-2-2/11

where $y = \frac{\lambda}{\beta}$. The solution is performed according to the matrix method of T.A.Sarymsakov, Academician of the Academy of Sciences Uz. SSR [Ref 2]. The author mentions A.Ya.Khinchin and A.N. Kolmogorov. There are 6 references, 3 of which are Soviet, 1 Danish, and 2 American.

ASSOCIATION: Sredneaziatskiy gosuniversitet imeni V.I.Lenin (SOV - Central Asian State University imeni V.I.Lenin)

SUBMITTED: May 23, 1958

Card 2/2

~~LEBEDEVA, E.N.~~

Linear operators. Nauch. trudy TashGU no.206:195-202 '62.
(MIRA 16:6)

(Operators (Mathematics))

LEBEDEVA, E.N.

Solution of a system of infinite linear equations. Nauch. trudy
TashGU no.208. Mat. nauki. no.23:114-121 '62. (MIRA 16:8)

(Linear equations)

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CIA-RDP86-00513R000929030012-5"

L 39715-66 EWP(j)/EWI(m)/T IJP(c) RM/WN/GD-2
ACC NR: AF6007964 (A) SOURCE CODE: UR/0191/66/000/003/0017/0019

AUTHOR: Nikolayev, A. F.; Van Er-Ten; Zyryanova, T. A.; Balayev, G. A.; Lebedeva,
E.V.; Afanas'yeva, K. S.

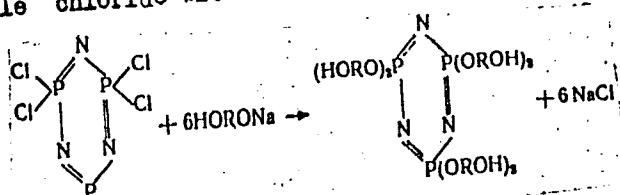
ORG: none

TITLE: Epoxy resins from derivatives of triphosphonitrile chloride

SOURCE: Plasticheskiye massy, no. 3, 1966, 17-19

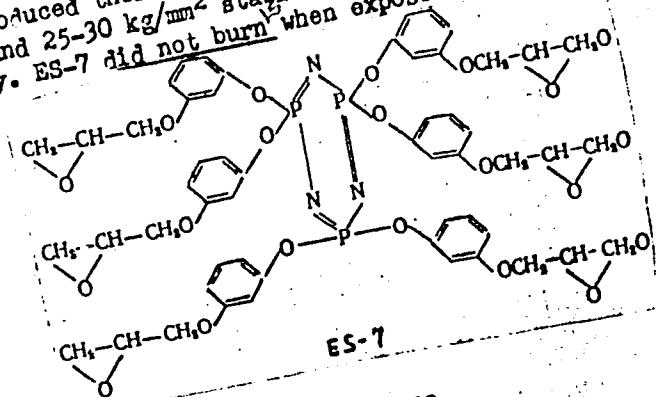
TOPIC TAGS: epoxy plastic, organic synthetic process, heat resistance, thermoplastic material

ABSTRACT: The authors studied the preparation of thermoplastics which could be made from low-molecular-weight compounds during the final preparation of an article. Hexa-glycidyl hexa-m-oxypyrenetriphosphonitrile (ES-7) was prepared by the reaction of triphosphonitrile chloride with m-dihydroxybenzene in a basic medium:



L 39715-66
ACC NR: AP6007964

and a subsequent reaction with epichlorohydrine.¹ The reaction was performed either heterogeneously in toluene or xylene or homogeneously in an absolute ethanol-toluene mixture. Maleic anhydride (40%) was used successfully as the hardening agent, but the plastic produced had a low thermal stability. Hardening at 180°C for 15-20 hr without any hardening agent produced thermoplastics resisting temperatures of 190-230°C, having a 350-400 kg/cm² and 25-30 kg/mm² stability, respectively. ES-7 did not burn when exposed to 100-1100°C for 20 sec.



APPROVED FOR RELEASE: 08/31/2001
Orig. art. 11 SUBM DATE: 08/31/2001 REF: 003
SUB CODE: 07, 11

CIA-RDP86-00513R000929030012-5

Card 2/2 A

L 35521-65 EWT(m)/EPF(c)/EPF/EWP(8)/T Pg-4/Pr-4/Ps-4 RPL NW/RM
 ACCESSION NR: AP500820C S/0286/65/000/005/0071/0071

AUTHORS: Nikolayev, A. F.; Zaryanova, T. A.; Baleyev, G. A.; Lebedeva, E. V.; Afanas'yeva, K. S.

TITLE: A method for producing polyphosphonitrile chloride esters. Class 59.
 No. 168879

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 71

TOPIC TAGS: polyphosphonitrile chloride, ester, aliphatic compound, aromatic compound

ABSTRACT: This Author Certificate presents a method for producing polyphosphonitrile chloride esters by condensing polyphosphonitrile chloride with polyhydroxyl compounds of the aliphatic or aromatic series during heating in the presence of an alkaline agent. In order to expand the raw-material base and to simplify the technology of the process, a mixture of phosphonitrile chloride oligomers (PNC_2)_n ($n = 5-12$) is used as the initial polyphosphonitrile chloride, and caustic alkalis are used as the alkaline agent.

ASSOCIATION: none

SUB CODE: OC

SUBMITTED: 09Jan64

ENCL: 00

NO REV SOV: 000

OTHER: .000

Card 1/1

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929030012-5

LEBEDEVA, E.

Planning operational centers on collective farms in Bryansk Province. Sel's.stroi. 11 no.10:12-15 0 '56. (MLRA 9:12)

1. Glavnyy inzhener Bryanskogo oblastnogo upravleniya po stroitel'stvu v kolkhozakh.
 (Bryansk Province--Collective farms)
 (Farm management)

LEBEDEVA, F.B.

U S S R .

Investigation of antiwear properties of lubricating oils by
the radioactive tracer technique. Yu. N. Znolavskii, G.I.
Shor, and L. B. Lebedeva. Izdat. Akad. Nauk S.S.R.
Otdel. Tekn. Nauk 1955, 1598-1608. The possibility of
wear study on a friction machine constructed at the U.S.S.R.

Academy of Sciences was demonstrated. Also studied was a
single-cylinder motor with rings made radioactive either by
radiation or by electroplating with radioactive Zn. The
tracer method supplies quant. as well as qual. data.
W. M. Sternberg

per 12 QM

USSR/Engineering

LEBEDEVA, F. B.

FD 267

Card 1/1

Authors : Zaslavskiy, Yu. S., Shor, G. I., Lebedeva, F. B.

Title : Accuracy of testing engines for wear by the radioactive-indicator method

Periodical : Iz. Ak. Nauk SSSR, OTN, 1, 54-60, Jan 1954

Abstract : Gives method and results of experimental study of accuracy of testing engine for wear by the radioactive-indicator method. Compares results obtained by simultaneous testing of the piston ring of single-cylinder engine L-3/2 for wear by the following methods: radioactive indicators, weight of piston ring, holes stamped in ring, and iron in oil. Four references: 2 U.S.S.R.; all 1953. Graphs, tables.

Institution :

Submitted : December 23, 1953. Presented by Academician V. I. Dikushin.

ZASLOVSKIY, Yu. S., SHOR, G. I., KIRILLOV, I. G., LEBEDEVA, F. B., YEVSTIGNEYEV, Ye. V.,
and ZLOBIN, O. A.

"The Application of Radioactive Indicators (Tagged Atoms) in the Investigation
of Wear Resistant Properties of Lubricating Oils." p. 58.

in book Study and Use of Petroleum Products, Moscow Gostoptekhnizdat, 195 . 213 pp.

This collection of articles gives results of scientific research work of the All-Union
Scientific Research Inst. for the Processing of Petroleum and Gas for the Production
of Synthetic Liquid Fuel.

119760
S/081/62/000/005/096/112
B160/B138

AUTHORS:

Zaslavskiy, Yu. S., Shor, G. I., Shneyerova, R. N.,
Lebedeva, F. B., Morozova, I. A., Ryabova, D. V.,
Stukin, A. D., Yevstigneyev, Ye. V., Yurchenko, P. F.,
Nizhnik, V. Ya.

TITLE:

Radioactive tracer methods for studying the functional
properties of oils with additives

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 534, abstract
5M262 (Sb. "Prisadki k maslам i toplivam", M.,
Gostoptekhizdat, 1961, 263 - 269)

TEXT: A short description is given of the radioactive tracer method developed in the VNIINP for studying electrokinetic processes connected with the mechanism of the action of certain dispersive additives for heavy diesel lubricating oils. A diagram of the experimental equipment is given. Its main feature is the combined use of radiation counters as electrodes for producing the electric field and for recording the movement of the labelled dispersed phase. Soot with the radioactive isotope Tl-204

Card 1/2

S/081/62/000/005/096/112
B160/B138

Radioactive tracer methods for...

was used to model the dispersed phase (oil oxidation and fuel combustion products). In the radioisotope method of studying the detergent properties of oils with additives the amount of gummy deposit was measured from the absorption of Co^{60} beta radiation in it. The method of studying the detergent properties of oils with additives, based on the oxidation of a thin layer of oil on a heated strip of steel, has been improved by radiometric measurement of the deposits, using Ca^{45} as a source. The chemical activity of antiscoring additives was estimated by determining the kinetics of the transitions from radioactive steel (irradiated with neutrons via Fe^{59}) or copper (activated by introducing tracer amounts of Ag^{110} into molten copper) to the oil, under the influence of the test additives. [Abstracter's note: Complete translation.]

Card 2/2

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R000929030012-5"

L 20330-63

EPP(c)/ENI(m)/BDS AFFTC/APGC 1Y-4 BN/RW/DJ

S/2864/61/000/000/0264/0269

ACCESSION NR: AT3001998

AUTHORS: Zaslavskiy, Yu. S.; Shor, G. I.; Shnayevrova, R. N.; Lebedeva, F. B.;
Morozova, I. A.; Ryabova, D. V.; Stukin, A. D.; Yevstigneyev, Ye. V.; Yurchenko,
P. F.; Nizhnik, V. Ya.

TITLE: Methods of investigation of the effectiveness of additives. Radioactive-tracer methods for the investigation of the functional properties of oils with additives.

SOURCE: Prisadki k maslам i toplivam: trudy nauchno-tehnicheskogo soveshchaniya. Moscow, Gostoptekhizdat, 1961, 264-269.

TOPIC TAGS: lubricant, lubrication, additive, radioactive, tracer, test, isotope, tagging, tagged, electrophoresis, dispersion, soot, detergent, varnish, wear, antiwear, seizure, antiseizure, Ti^{204} , Ca^{45} , Co^{60} , Fe^{59} , Ag^{110} , beta radiation, As-5, VNII NP-354.

ABSTRACT: In addition to a literature survey on the use of radioactive tracer (RAT) methods for testing of the functional and operational properties of oils with the paper describes several newly developed Soviet methods: (1) The study of the electrokinetic processes involved in the

L 20330-63

ACCESSION NR: AT3001998

In this method, the action of some dispersion-augmenting additives to engine oils. In this method, the RAT radiation counters are employed simultaneously as electrodes for the formation of an electrical field and for the registration of the displacements of the tagged dispersive phase. The soot that simulates the dispersive phase (oxidation products of oil and fuel combustion) was tagged by the radioactive (RA) isotope Tl^{204} . The experimental equipment is schematically portrayed and described, and a diagram of the electrophoresis of the tagged soot in AS-5 engine oil (an S-containing-crude derivative) with VNII NP-354 additive is shown (counter readings in pulses/sec vs. time in min). (2) RAT methods for the investigation of the detergent properties of oils with additives. The degree of varnish formation is measured with a method based on the measurement of the thickness of varnish film by means of its absorption of the beta-radiation of Co^{60} . $Co^{60}(NO_3)_2$ served to activate areas on a piston which were not subject to wear. The amount of varnish film formed on the piston surface during a given testing period was evaluated with the aid of a calibrated graph that expressed the change in the intensity of radiation in units of the density of varnish film ($in\ mg/dm^2$). Test results, comprising the amount of deposits and the amount of soot in the deposits, for AS-5 oil with various additives, are tabulated. RAT methods, developed at the VNII VP for the evaluation of the chemical activity of antiseizure additives, are based on the postulate that the most effective antiseizure additives must be those chemical

Card 2/3

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L 20330-63

ACCESSION NR: AT3001998

compounds that have the greatest corrosional aggressiveness. The chemical activity of such additives was evaluated by the transfer kinetics of radioactive steel (^{59}Fe) or Cu (activated by neutron irradiation) or Cu (activated by tracer quantities of radioactive steel Cu). Tests of the radiometric determination of the chemical activity of Ag^{110} in fused appreciable chemical wear of friction surfaces under normal and even small loads, the VNII NP has developed a RAT method for an evaluation of the wear properties of oil with additives on a specially designed frictional-wear tester. The operating part of the machine is activated with Co^{60} . Small quantities of oil (appx. 1 cm^3) are employed; the global radioactivity of the oil is measured. Loads up to 80 kg/cm² at 1,000 rpm and oil T up to 250°C are attainable. Test results are graphed. Orig. art. has 5 figures and 2 tables.

ASSOCIATION: VNII NP

SUBMITTED: 00

DATE ACQ: 23Jan63

ENCL: 00

SUB CODE: FL, CH, EL

NO REF SOV: 005

OTHER: 006

Card 3/3

LEBEDEVA, F.B.

11.970

Wno 1563 2209

32530
S/065/61/000/012/004/005
E194/E135

AUTHORS:

Zaslavskiy, Yu.S., Shor, G.I., Shneyerova, R.N.,
Kuznetsova, A.I., and Lebedeva, F.B.

TITLE:

Reducing the corrosivity of extreme pressure (E.P.)
additives without impairing their effectiveness

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.12, 1961,
59-43

TEXT: Previous work by the authors has shown that whereas
anti-corrosion additives should have strongly bonded sulphur or
phosphorus in the molecule, E.P. additives should easily release
sulphur, phosphorus or chlorine to form compounds on the metallic
surfaces at high contact temperatures. This explains the well-
known correlation between good anti-wear properties and high
corrosivity. A combination of anti-wear properties and high
additive components should overcome the effect of delayed E.P.
action in high-speed friction tests. In surfaces subject to high
speed friction there is not always time for the E.P. additive to
operate. For laboratory tests of two component additives the

Card 1/5

X

Reducing the corrosivity of

32530
S/065/61/000/012/004/005
E194/E135

authors developed radiotracer methods of determining the chemical activity of E.P. additives in oils in the presence or absence of friction. The chemical activity of the E.P. additives was assessed by determining the kinetics of solution of radioactive steel in oil or of copper which was activated with Ag¹¹⁰. Determination of the chemical activity relative to radioactive copper and steel were made with various sulphurised and chlorinated organic compounds and mixtures of these. For example, in tests with copper foil at a temperature of 150 °C it was found that chemical activity of the sulphur-containing additive dibenzyl disulphide and that of chlorinated wax were both much less than the chemical activity of a mixture of these additives. A mixture containing base oil plus 3% dibenzyl disulphide plus 7% chlorinated wax gave the best E.P. protection in the four ball test. When 6% of barium alkyl phenolate was dissolved in oxpropylated alkyl-phenol was added to the oil containing dibenzyl disulphide and chlorinated wax there was a marked diminution in corrosivity of the oil without impairment of the E.P. properties. However, the reduced corrosivity to copper lasted for only ten hours. The anti-corrosion properties of Card 2/5

32530

S/C55/61/000/012/004/005
E194/E135

Reducing the corrosivity of ...

phosphorus-containing compounds were also tested on the assumption that effective protection of metallic surfaces against corrosion by atoms of chlorine and sulphur can be achieved by creating, not a molecular, but a more continuous atomic film which is less penetrable. To create such films the phosphorus-containing compounds must be soluble in the base oil and release phosphorus at considerably lower temperatures than the decomposition temperatures of the E.P. components. It was indeed found that the use of phosphorus-containing additives ensured effective reduction of corrosion of steel at an oil temperature of 200 °C in the presence of a mixture of dibenzyl disulphide and chlorinated wax. Moreover, four ball machine tests showed that the E.P. properties were not impaired. Tricresyl phosphate had no anti-corrosive effect, whilst triphenyl phosphate caused a marked reduction in corrosion. By using phosphorus-containing anti-corrosion components in blends with more chemically active E.P. additives, effective blends may be made using chemical compounds that hitherto have been rejected because of their high corrosivity. E.P. oils were tested on a friction machine in which

Card 3/5

X

32530
S/065/61/000/012/004/005
E194/E135

Reducing the corrosivity of

the rubbing surfaces are the ends of two hollow cast iron cylinders of 16 mm external diameter, one of which was radioactive. The tests were made at a speed of 600 r.p.m. with a load of 2.5 kg/cm² for a period of one hour. Typical test results show that the base oil gave a mean wear rate of 660 impulses/min of the counter; the base oil plus 3% of additive LZ-6/9 (LZ-6/9) plus 7% chlorinated wax gave a wear rate of 1920 impulses/min. The same plus 0.5% triphenyl phosphite gave a wear rate of 840 impulses/min. Thus the triphenyl phosphite reduced the corrosivity of the E.P. oil to the level of the base oil. There are 3 figures, 1 table and 17 references: 11 Soviet-bloc and 6 non-Soviet-bloc. The four most recent English language references read as follows:

Ref.11: J.S. Elliot, N.E. Hitchcock, E.D. Edwards.
Hypoid Gear Lubricants and Additives. J. of the Institute of Petroleum, v.45, no.428, 219-235, 1959.

Ref.12: F.T. Barcroft. A Technique for Investigating Reactions between E.P. Additives and Metal Surfaces at High Temperatures. Wear, v.3, no.6, 413-500, 1960.

Card 4/5

X

Reducing the corrosivity of

Ref. 14: R.B. Campbell, L. Grunberg. Study of reactions of metals
with sulphur and phosphorus compounds by pulsed
temperatures. Paper no.RICC/32 at the International
Conference on the use of isotopes in Physics and Industry
(Copenhagen, September 6-17, 1960). Izd. MAGATE, Vena.
1961.

Ref. 15: G. Hugel. Chemical nature of extreme pressure lubrication.
Lubrication Engineering, v.14, no.12, 523-526, 1958.

ASSOCIATION: VNII NP

Card 5/5

ZASLAVSKIY, Yu.S.; SHOR, G.I.; SHNEYEROVA, R.N.; LEBEDEVA, E.B.

Reducing chemical wear in using lubricating oils with antiseizing
additives. Tren.i izn.mash. no.15:486-494 '62. (MIRA 15:4)
(Lubrication and lubricants--Testing)

S/883/62/000/000/018/020
E194/E155

AUTHORS: Zaslavskiy, Yu.S., Shor, G.I., Pashchenko, A.N.
and Lebedeva, F.B.

TITLE: Radio-tracer methods of studying the anti-wear
properties of lubricants

SOURCE: Metody ispytaniya na iznashivaniye; trudy soveshchaniya,
sostoyavshegosya 7-10 dek. 1960. Ed. by
M.M. Khrushchov. Moscow, Izd-vo AN SSSR, 1962. 182-191.

TEXT: Tests in engines with radioactive parts, such as are
used at VNII NP and elsewhere, cannot fully assess the properties
of additive type oils and they are supplemented by a number of
laboratory test procedures. In test rig PYM-1 (RUM-1) irradiated
cast-iron blocks slide against the end of a cast-iron ring in the
presence of acetic acid vapour, and wear is assessed by measuring
the radioactivity of the oil. Alkaline additives such as barium
alkyl phenolate retard wear until they are depleted. Results
obtained on this apparatus with new and used oils correlate well
with those obtained by engine tests and other procedures. A
laboratory radioactivity indicator procedure was developed to

Card 1/3

Radio-tracer methods of studying ...

S/883/62/000/000/018/020
E194/E155

assess the chemical activity of anti-wear additives by dissolving activated steel or copper in the oil. Test results are quoted for oil with various amounts of dibenzyl disulphide and chlorinated wax. Significant results are obtained in tests with steel at 200 °C in 75 hours or with copper at 150 °C in less than 5 hours. The results line up with seizure load determinations on the four-ball machines. The influence of chemical action of E.P. additives on frictional wear at light loads is assessed in a friction machine which uses hollow cylindrical test pieces 16 mm o.d.: 10 mm i.d., one being activated. One cylinder is driven at 600 r.p.m. Oil is contained between the cylinders. The radioactivity of all of the oil is measured, and so is the transfer of metal from the irradiated to the inactive rubbing surface. Test results are quoted on high- and low-sulphur basic lubricants with various additives. The repeatability is good and the effects of various changes in the oils are clearly shown. Detergent engine additives can sometimes promote wear. A rig is described which comprises combined oxidation and wear tests. The oil is contained in a teflon cup with a cast iron base against which an irradiated

Card 2/3

Radio-tracer methods of studying ... S/883/62/000/000/018/020
E194/E155

hollow cast iron cylinder rotates. A heated plate is contained in the oil and lacquer formation on this plate is assessed by the absorption of β -radiation. Wear is assessed by measuring the radioactivity of the oil. The test sample of 25 ml is heated up to 190 °C during the test by the combined effects of the hot surface and friction. The test lasts for 5 hours. The combination of wear and oxidation test provides an effective way of differentiating between oils.

There are 5 figures and 4 tables.

Card 3/3

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ZASLAVSKIY, Yu. S.; SHOR, G. I.; MOROZOVA, I. A.; LEBEDEV, F. B.; YEVSTIGNEYEV, Ye. V.;
SHNEYEROVA, R. N.

"New methods of investigation of lubricant properties."

report submitted for Intl Lubrication Conf, Washington, D.C., 13-16 Oct 64.

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